

ABSTRACT

[0052] A method of forming a magnetic tunnel junction memory element and the resulting structure are disclosed. A magnetic tunnel junction memory element comprising a thick nonmagnetic layer between two ferromagnetic layers. The thick nonmagnetic layer has an opening in which a thinner tunnel barrier layer is disposed. The resistance of a magnetic tunnel junction memory element may be controlled by adjusting the surface area and/or thickness of the tunnel barrier layer without regard to the surface area of the ferromagnetic layers.